EuroACE
THE EUROPEAN ALLIANCE OF COMPANIES FOR ENERGY EFFICIENCY IN BUILDINGS

Financing of Energy Efficiency Measures

EuroACE **Policy Briefing** for the Informal Energy Ministers Meetings – Athens – 16th May 2014

EuroACE calls on the Member States to:

Support an ambitious post-2020 climate and energy policy that will capture the full cost effective potential by 2030, knowing that a binding sectoral target of reducing energy demand of existing building stock by 61% (residential) and 38% (tertiary) by 2030 is achievable and will put the EU on the right track for the achievement of its long-term ambitions, including on energy dependence;

Use the requirement of Article 4 of the Energy Efficiency Directive to fully empower the building sector to realise the national building stock's potential for energy efficiency improvements, using the opportunity to also monetise the multiple benefits that ambitious renovation programmes will deliver. On this basis, articulate the benefits to the financial sector, step up regulatory enforcement in the sector and **introduce ambitious energy efficient renovation programmes** for their countries that optimise the use of available expertise, technologies and funding sources;

Remove structural barriers to the uptake of energy efficiency in buildings as recommended in the Study by Copenhagen Economics: this can be done at no-cost to governments.

The main structural barriers relate to rent regulation, treatment of budget management for publicly owned buildings (i.e. changes to public accounting rules through requests to Eurostat), favourable tax treatment for heating and electricity use in buildings and management of risk for investment in renovation of buildings.

Summary

Energy is the lifeblood of our economies and the most precious resource for society. In the EU, economic growth is elusive and unemployment is high. Conflict on the borders of the EU harshly highlights our poor energy security and our vulnerability to political turmoil in partner countries that supply (or transit) our energy needs.

One crucially important weapon that we can deploy in the EU to go a long way to addressing this vulnerability is courageous and high ambition in moderating energy demand via energy efficiency targets and measures.

Setting up a strong legislative, regulatory and financial framework in the EU and in its Member States through which the full cost-effective energy efficiency potential is captured, is essential if we are to address the challenges outlined above. The largest and most readily available source of energy savings in the EU is to be found through the renovation of the existing building stock. On its own, the building stock could reduce its energy consumption by 54% in 2030[i] as compared to projections in Primes 2009. By 2050, it could reduce its demand by 80% as compared to 2010, an ambition called for by the European Parliament on two occasions in 2014. Furthermore, in doing so, the buildings sector will deliver these benefits:

- ***Reduced dependence on imported sources of primary energy*** (thus saving billions of euro in reduced imports)
- ***2 million new, direct, local jobs in 2020*** (rising to about 6 million jobs when indirect job creation is counted)
- ***€39 billion net extra income to public finances*** (in 2020, increasing each year that investments are maintained)
- ***0.7% per annum growth in GDP*** (through boosting deep renovation activity to 3% per year in the construction sector)
- ***€670 to €830 billion*** additional annual turnover in the construction sector (from 2020)
- ***Significant reduction in energy poverty*** (by tackling low-income homes first)
- ***Improved health and quality of life*** for millions of EU citizens (through living and working in better buildings)
- ***Greater productivity*** *boosting EU competitiveness and increasing the bottom line for companies*

The effort required to achieve the benefits outlined above will be significant and will include:

- A high level of investment, but roughly equivalent to the savings the EU can make through reduced imports of primary energy
- Increased training, skills acquisition and capacity in the EU work force
- The construction of new production and distribution facilities

But it will be worthwhile and it will leave the EU economy and its peoples more independent and more resilient to future economic, political and energy shocks.

Context

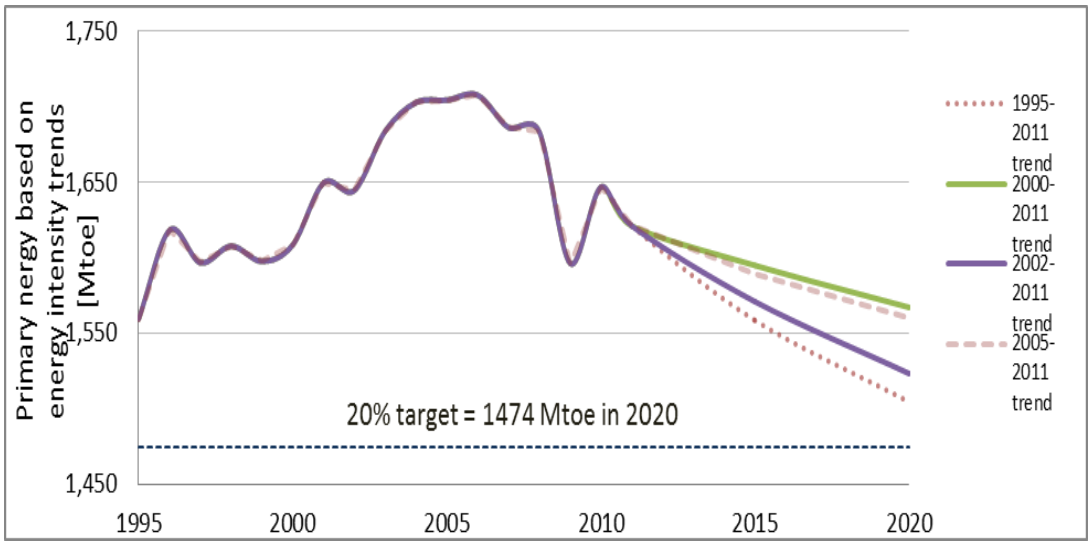
Recent political upheaval in Ukraine has significantly raised concern about energy security in the EU. It has focussed minds on the high percentage of our fossil fuels that are imported from the East and that transit through Ukraine. The European Commission has, as a result, been asked by the Council to prepare a report with recommendations on how to significantly and quickly increase energy security in the EU. That report will be debated at the June Council.

In addition, the economic situation in the EU is an on-going cause for concern and whilst this paper is not about that issue, it does point out that courageous and ambitious energy efficiency targets and policies can go a long way to alleviating the concerns of EU member states on energy security and economic recovery.

In particular, it contains encouraging indications that investing more ambitiously in energy efficiency of buildings would significantly help the EU to emerge more quickly and sustainably from the current economic and financial difficulties, whilst measurably boosting energy security.

The 2020 Horizon and What Lies Beyond

Recent indications from the European Commission on progress towards the achievement of the 2020 targets[ii] that form part of the Climate and Energy Package adopted in 2009, show that the EU is on track to achieve the greenhouse gas emissions target, likely to achieve the renewable energy sources target, but definitely not on track to meet the energy efficiency target (see Graph 1).



Graph 1: The EU is not on track to meet its 2020 Energy Efficiency target, no matter which trend is chosen
Source: European Commission, DG Energy

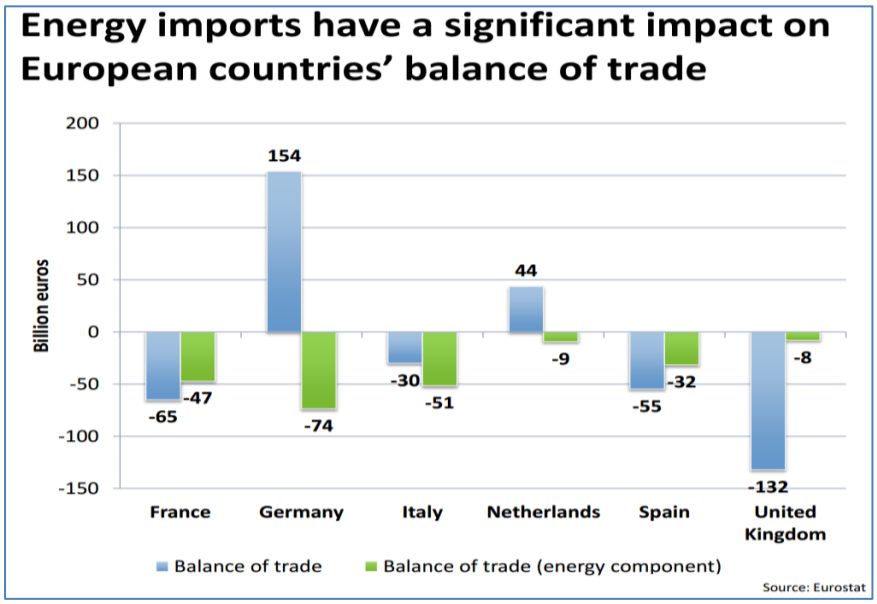
There is a widespread belief among concerned stakeholders, that the reason the energy efficiency target will be missed is that it was not a binding target. This remains the case even after the adoption of the Energy Efficiency

Directive (EED – 2012/27/EU) in late 2012 and has led to repeated calls from many stakeholders, including EuroACE, for a binding energy efficiency target to be introduced in the 2030 Climate and Energy Package, currently being formulated and debated.

The appropriate level for such an overall energy efficiency target has been studied by the Fraunhofer ISI[iii] in response to a request from the Coalition for Energy Savings. It has used its well establishing modelling to define the cost-effective potential from contributing sectors and found that it amounts to a figure of 41% in final energy savings. Among the contributing sectors is the buildings sector, which was found to have a cost effective savings potential to 2030 of 61% for the residential segment and 38% for the tertiary segment. This presents to the Member States a great opportunity that should not be missed.

European Energy Dependence Day

The EU is worryingly reliant on external sources of energy, leaving it vulnerable to energy shocks, high costs and, as we have recently seen, political turmoil. The cost of these energy imports is further aggravating the economic problems that the EU faces as the trade balances of Member States are significantly affected by energy purchases. Eurostat has compiled trade balance statistics that vividly demonstrates this factor:



Source: Eurostat, extracted from PPT Presentation by Yamina Saheb (IEA) in 2012: http://www.eceee.org/events/eceee_events/the-WEO-challenge

The EU reliance on energy imports means that there is a long period each year when we can say that the EU is fully dependent on external sources of energy. Eurostat reports that in 1995, the EU was 43.2% dependent on energy imports and that by 2011 this figure had grown to 53.8% - in large part due to increased energy use in buildings. All projections about the future dependence of the EU on energy imports show that this percentage is going to continue to increase.

To look at this another way, we can identify a date each year when the EU runs out of its own indigenous sources of energy and becomes 100% reliant on imports – European Energy Dependence Day. In 1995 that date was the 26th July, leaving the EU with a need to cover 5 months energy via imports. By 2011, the date was the 18th June, adding more than a month (38 days) to our period of 100% dependence.

As the years go by, the EU becomes 100% dependent on energy imports, earlier and earlier each year:

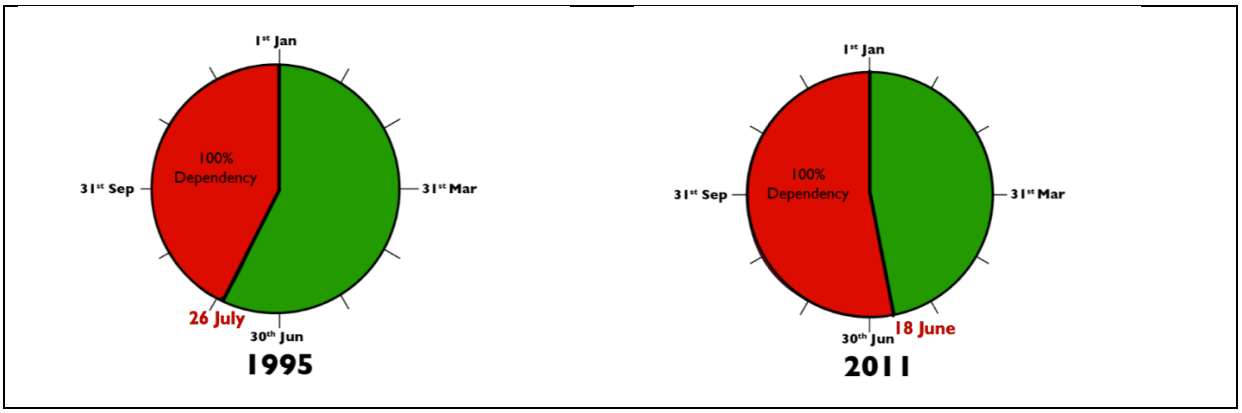
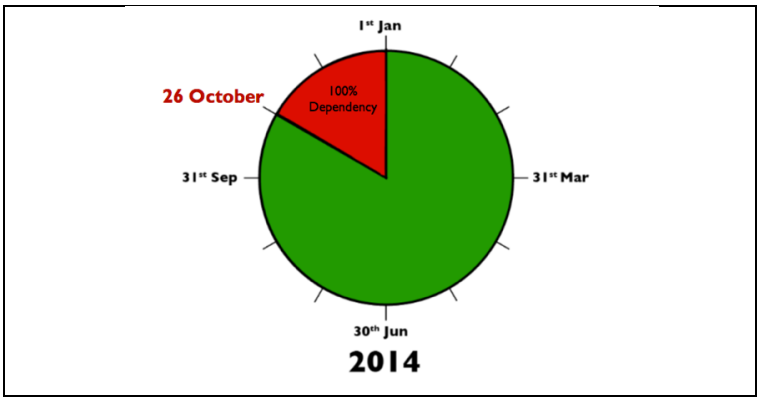


Illustration of change in European Energy Dependence Day, 1995 and 2011

In addition, the annual cost of these imports is also rising at a worrying rate, with Eurostat reporting that the EU spent €421bn net on these imports in 2012[iv]. It means that for every day we can extend our energy independence by reducing our energy demand, a net financial saving of €1.15bn accrues to the Member States of the EU, money that can be used to create economic activity and jobs. A large number of commentators are calling for the EU and its Member States to take advantage of this realisation and to seize the opportunities that lie in front of us, especially when it comes to the buildings sector.

What impact on European Energy Dependence Day would capturing the full, cost effective energy efficiency potential of the EU, identified at 40% by the Fraunhofer ISI by 2030, actually mean?

With the right planning and careful consideration of the fuel mix in our economies, it could mean that the EU would reduce its energy imports by up to 80%. ***Imagine*** that we were able to fully capture that level of savings this year. It would mean that European Energy Dependence Day would fall on the 26th October 2014 – a full 4 months and 8 days later than it did in 2011:



Imagine:
European Energy Dependence Day ***if full 40% savings captured*** *this year*

Opportunity: The Buildings Sector – a Huge Untapped Reservoir of Energy

Keeping our buildings comfortable, warm or cool and in good condition requires a great deal of energy. It is estimated that buildings account for about 40% of the primary energy consumption in the EU and about 36% of its energy-related CO_2 emissions. As a result, the sector has been the subject of a specific sectoral directive, the Energy Performance of Buildings Directive (EPBD – 2010/31/EU) that was welcomed by all involved in the buildings sector. The sector also features prominently in the Energy Efficiency Directive (EED – 2012/27/EU), due to be fully transposed into National Law by the 5th June 2014.

For new buildings, the EPBD introduced an ambitious goal that all new buildings built after 2020 must be nearly zero energy buildings (after 2018 for all public buildings). However, **the requirements for existing buildings are not so ambitious** and this is increasingly a concern. The concern arises from doing the maths on activity levels in the buildings sector in the EU. The Buildings Performance Institute Europe (BPIE)[v] estimated the current activity levels as follows:

New Build Annual Rate:	0.5%
Demolition Annual Rate:	0.2%
Renovation Annual Rate:	1%

Assuming that these rates remain constant over the coming decades, we can calculate that more than 75% of the buildings that will make up the EU building stock in the EU in 2050 are already built today and that **up to 90% of the buildings standing today will still be standing and occupied in 2050**. This means that addressing the energy performance of the existing building stock is of paramount importance if the 2050 objectives of the EU are to be achieved.

With currently available technologies, **it is possible to reduce the energy consumption of a large part of the building stock by 80%** and it is therefore proposed that this should be the level of reduction that long-term strategies prepared by the Member States should seek to achieve. These strategies are required to be developed by Member States under Article 4 of the EED and the deadline for their submission to the European Commission has passed (30th April 2014). To date, **we regret that only very few Member States have seized the opportunity offered by this Article to develop a strong vision of the contribution of their buildings to energy savings, climate change and energy security**. We hope that future strategies will be developed in a process involving those stakeholders who then will implement the strategies: architects, industry, building professionals, regional authorities, financing institutions, etc…

To best match market conditions and to permit all actors that can contribute to the overall goals to find their place in the transformation of our building stock, the national strategies should allow for a well-planned, staged renovation approach that enables the achievement of the overall goal. In this way, building owners can plan how cost-effective sets of measures can be put into their buildings over time to reach a targeted level of performance, ensuring that each set of measures does not preclude future sets being placed in a cost-effective manner.

Multiple Benefits of Energy Efficient Renovation Programmes
For the EU as a whole, the benefits that are waiting to be harvested from the introduction of ambitious energy efficient renovation programmes for buildings include:

- ***Reduced dependence on imported sources of primary energy*** (thus saving billions of euro in reduced imports)
- ***2 million new, direct, local jobs in 2020*** (rising to about 6 million jobs when indirect job creation is counted)
- ***€39 billion net extra income to public finances*** (in 2020, increasing each year that investments are maintained)
- ***0.7% per annum growth in GDP*** (through boosting deep renovation activity to 3% per year in the construction sector)
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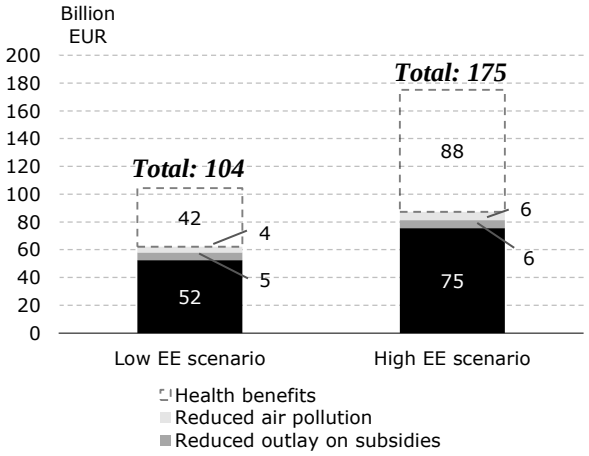
To unleash these multiple benefits, a strong, coherent and properly enforced regulatory framework, supporting a target for energy efficiency, is needed. **Because the structure of the construction sector is so fragmented and diverse, a binding target for buildings is needed that will drive the necessary transformation in the sector**. A target will mobilise and motivate the sector and act as the first step towards a conducive, coherent legislative framework for renovation. This will require courageous political decisions and strong will, but the businesses that EuroACE represents stand ready to make the effort once policy predictability and a stable investment landscape are in place.

In 2012, Copenhagen Economics was commissioned by the Renovate Europe Campaign[vi] to investigate and to monetise the multiple benefits that arise from investment in energy efficient renovation of buildings with a particular emphasis on the impact on public finances. Evidence was emerging from several countries, including Germany and Ireland (*See Note 4 at end of paper*), that returns to public finance of up to €5 for every €1 invested on particular energy efficiency programmes were being observed. At this rate of return, investing in energy efficient renovation programmes would be a significant source of income for Member State finances.

The Study[vii] found that we are at a very opportune time to begin to invest in such programmes as interest rates are at an historical low in many countries and unemployment is high. This combination of an abundant supply of labour and inexpensive money is propitious to the emergence of innovative financing and incentive schemes, which are needed to kick-start the renovation programmes. The results show that there are two main streams of income that can be distinguished, each one delivering continuous benefits to society at large and to Public Finances in particular[viii].

The first is **annual benefits** that arise following the completion of works. These benefits increase over time as more and more buildings are renovated. In this category, the benefits to society total up to €175 billion per year (in 2020) and the benefits to public finances reach up to €39 billion per year (in 2020) as shown in Figures 1 and 2. If the investments continue over time, these amounts will double by 2030!

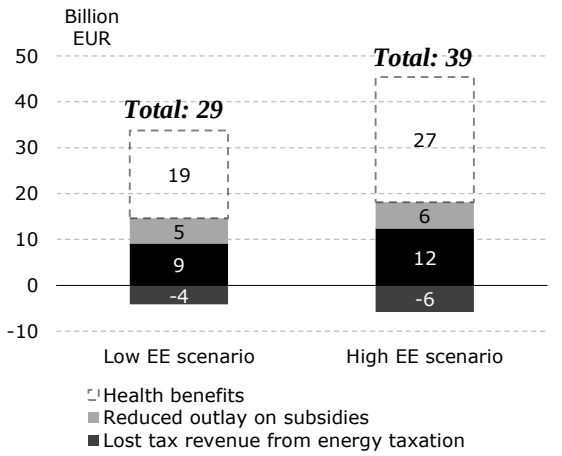
Figure 1: Annual gross benefits from energy efficie renovation of buildings, 2020 (€bn)



Note: These results include a rebound effect of 20%, meani that the benefits are potentially higher if the effect c be avoided

Source: Copenhagen Economics

Figure 2: Annual net improvements of public finance 2020 (€bn)



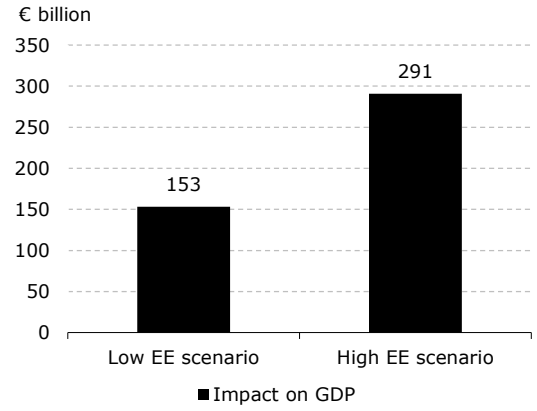
Note: These estimated gains to public finances are alrea included in in 2 and should not be considered additional improvements

Source: Copenhagen Economics

The second category of benefits is **"one-off" benefits** that will arise as a result of the fact that the EU is in a period of reduced economic activity and it is operating below structural GDP levels. It is expected that the EU will return to structural GDP levels in 2017 or 2018 and Copenhagen Economics identified that in addition to the annual benefits noted above, a "one-off" benefit to society rising to as much as €291 billion will accrue in the

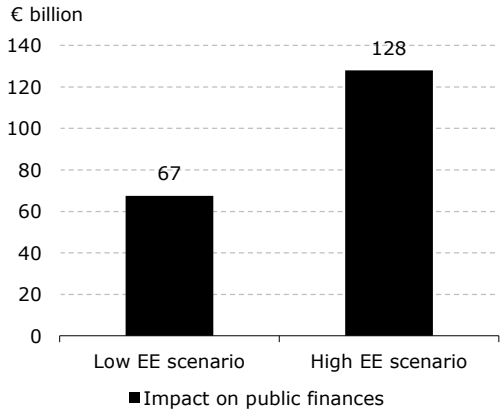
period to 2017 and, for public finances, the "one-off" benefits could be as high as €128 billion as shown in Figures 3 and 4 below.

Figure 3: Impact on GDP from increasing econom activity (€bn)



Source: Copenhagen Economics

Figure 4: Impact on public revenue, increased econom activity (€bn)



Source: Copenhagen Economics

The Copenhagen Economics Study was disseminated in 2012 to the Ministries of Finance and Economy in the Member States of the EU and to the Ministers of Energy at the Informal Meeting held under the Irish Presidency on the 24th April 2013.

The Energy Efficiency Directive (EED) – Good for Growth and Jobs?

The EED was perceived as a step in the right direction as the energy efficiency sector is the sector that holds the most accessible potential for creating growth and jobs in the present circumstances. **However, the businesses represented by EuroACE have not seen an increase in activity since the adoption of the Directive, probably due to its lack of focus on ambition in the buildings sector**.

The lack of effect of the Directive is all the more disappointing as it is well known that ambitious action on energy efficiency today would continue to reward society and public finances over many, many years. This is particularly true for energy efficiency measures in buildings as **the savings that are made continue to deliver over the full useful lifetime of the measures put in place**.

The EED also contains a range of binding measures that the Member States have signed up to. The principle binding measures that count for the buildings sector are:

- Article 4, which explained earlier, should provide for an instrumental process whereby Member States work out the potential and the means to tap the enormous potential of their building stock
- The renovation of 3% of central government buildings owned and occupied by Member State governments, a requirement that came into force on the 1st January 2014
- The introduction of energy saving obligation schemes in the Member States that will require energy suppliers to achieve 1.5% per annum savings among its final end-use customers. The reports from Member States on how they will achieve this target were submitted in December 2013 and initial analysis shows that all Member States will, to a greater or lesser extent, use derogations that collectively bring the estimated savings down to just 0.8% per year – a missed opportunity!
- The introduction of a requirement for all large companies to undertake energy audits and to act on the recommendations of those audits

Altogether, the European Commission estimates that in conjunction with other energy efficiency legislation in place in the EU, the EED will ensure that the level of energy efficiency improvement in 2020 will be about 17% a long way short of the 20% target (see Graph 1 above). If Member States where to choose to go beyond the minimum requirements of the EED, then the situation could be different.

In this regard, the Coalition for Energy Savings[ix] of which EuroACE is an active member, has published a guide to the implementation of the EED that gives recommendations on how to go beyond the minimum requirements of the EED. The Coalition's Guide is becoming a key reference for all stakeholders and administrations that are engaged in the implementation of the EED.

The Energy Efficiency Financial Institutions Group (EEFIG)

Established, in conjunction with the UNEP Financial Initiative, by the European Commission in late 2013 as a permanent working group, the EEFIG aims to create dialogue between policy makers and representatives of the financial sector as well as energy efficiency experts. The group currently comprises 51 individuals representing a full cross-section of the financial sector and energy efficiency experts.

In late April 2014, it issued its Interim Report on Financing of Energy Efficiency in Buildings entitled *Energy Efficiency – The Fuel for the EU Economy*[x]. The unique feature of the work of the EEFIG is that it is the first time that such a representative group from the financial sector has come together and it has been able to formulate independent recommendations based on the collective experience of those in the group.

The headline recommendation that the report captures on how to unlock the immense financial resources that are available in the financial institutions **is to articulate, with evidence, to key financial decision makers (public authorities, building owners and managers and householders) the full benefits of energy efficient renovations so that the clear business case for ambition in this sector becomes fully understood**. Ensuring as a follow-on that the processes and standards for energy performance certificates, energy regulations and their enforcement are strengthened and improved will also be necessary.

These are recommendations that Member States can readily take up by ensuring that they fully and ambitiously implement in their jurisdictions, the existing EU legislation for buildings, going beyond the minimum requirements where that would suit national or regional circumstances.

Financing Energy Efficiency in Buildings – A Project of Common Interest that Boosts Energy Security

As this policy briefing illustrates, the buildings sector provides a huge opportunity for the EU to boost its energy security and to emerge more confidently from the economic and financial crisis that has dampened growth for nearly 6 years. The introduction of ambitious energy efficient renovation programmes will stimulate economic activity and deliver additional financial resources to society and to governments, increasing over time. With the combination of policy developments at EU level, available labour resources, historically low interest rates, emerging financing models (see *Note 3* at the end of this paper) and receptive Member States now concerned about energy security, the time has never been better to grasp this opportunity.

Given that capturing the energy efficiency potential of the existing building stock will deliver such a comprehensive range of benefits, EuroACE calls on the Member States to consider that the ambitious renovation of buildings should be given the same attention and high levels of financing from public funds at the Projects of Common Interest (PCIs) that have been identified as being necessary to complete the internal energy market. After all, reducing the energy demand of the buildings stock to its full potential will reduce the overall consumption of energy by 32% and mean that the level of investment for the already identified PCIs will be lower.

In closing, it is worth recalling that the International Energy Agency (IEA) refers to energy efficiency as the world's first fuel[xi] and it reported that in 2010 the volume of savings made through energy efficiency measures, when considered as a source of energy, exceeded the volume of energy produced by any other energy source in that year.

The time for Energy Efficiency has come and it is for the governments of Member States to seize the opportunity!

End of Paper
Drafting completed on 14th May 2014

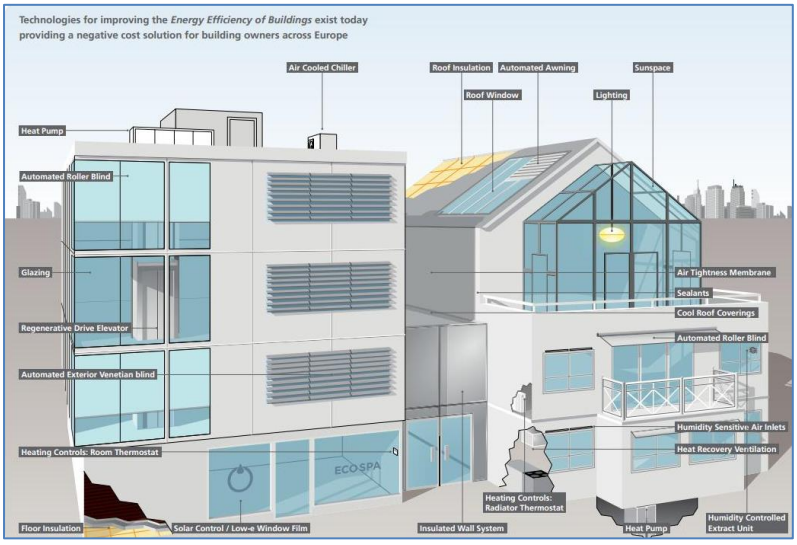
This paper supports the presentation made by Adrian Joyce of EuroACE to the Informal Meeting of EU Ministers of Energy in Athens on the 16th May 2014, in which he addressed the issue of financing energy efficiency measures. To do so, he described the current political and economic landscape and highlighted the opportunity that ambitious and courageous movement on energy efficiency can bring. In particular, he stressed that high ambition in the existing buildings sector offers Member States the opportunity to quickly create hundreds of thousands of local jobs, to significantly increase energy security, to kick-start the EU economy and to increase the competiveness of one of our most important industries – construction. This last factor holds the potential to be a cornerstone of the recently announced *Industrial Renaissance of the EU*[xii].

Notes:

1. EuroACE

The European Alliance of Companies for Energy Efficiency in Buildings[xiii] is a European Business Association that was set up in 1997 to bring together leading companies that operate in the EU in the field of energy efficient buildings. Its members know that one of the most cost-effective ways to address our climate and energy goals is to address the very poor energy performance of our buildings. They employ more than 300,000 people and have over 770 production facilities and offices locations in the EU.

EuroACE promotes a technology-neutral, integrated and holistic approach to the question of the energy efficiency of buildings. For this reason its members promote the use of complementary sets of energy efficiency measures in all projects (whether new-build or renovation). These sets of measures include highly insulated building envelopes, efficient equipment, intelligent controls, best available lighting systems, high performance windows and controlled ventilation equipment.



Already very engaged in product research and development, the members of EuroACE see that the introduction of highly ambitious energy efficient renovation programmes for the EU building stock will spur further innovation and will render the EU construction sector one of the most competitive in the world.

2. Long-Term Strategies (Article 4 of the EED)

Over and above the binding measures in the EED, there is one provision that requires Member States to look beyond the 2020 horizon set by the current EU Climate and Energy Package. This is the requirement for all Member States to prepare long-term strategies for the mobilisation of financing for the renovation of existing buildings (both public and private). These strategies, which were due to be submitted in April 2014, present a huge opportunity to Member States to quantify the potential multiple benefits tied up in its building stock and prepare plans to tap such potentials. The diagram[xiv] below illustrating five recommended phases that Member States were to go through in the preparation of a comprehensive strategy, underlines the importance of developing a solid and inclusive process as a key success factor:

PHASE 1	Identify key stakeholders Identify information sources
PHASE 2	Building stock characterisation Economic appraisal of renovation potential Identification of energy and non-energy benefits Quantification of investment requirements and funding sources
PHASE 3	Comprehensive appraisal of barriers Assessment of range of policy measures Development of holistic policy package
PHASE 4	Draft renovation strategy Consultation on draft strategy
PHASE 5	Publish final strategy Commence policy implementation process Establish monitoring and evaluation procedures Review and update strategy every 3 years

Recommended phases in the development of a long-term strategy for renovation of the building stock
Source: Supporting EU Member States in developing ambitious renovation strategies (Building Performance Institute Europe, 2013)

Many stakeholders were hopeful that Member States would use 2050 as the horizon for their long-term strategies and that they would align their ambitions with the various Roadmaps that the European Commission developed in 2011 in related fields. However, it is not yet possible to say if the submitted reports have fulfilled stakeholder expectations. It is to be hoped that the Member States will build on these reports in order to ensure a long-term stable perspective that builds investor confidence, something that is essential for the achievement of our collective economic, competitiveness and climate mitigation objectives.

3 Financing Renovation Programmes With Public Funds is Profitable

A good example of a national model for financing energy efficiency is the KfW Energy Efficient Refurbishment Programme in Germany. Through this programme, KfW (a government-owned development bank) provides soft loans to local banks, which then lend these funds on to private homeowners, homeowners' associations and housing companies. The programme applies a mixture of soft loans and grants, and the more efficient the dwelling becomes after refurbishment, the less of the loan the building owner has to repay.

Between 2006 and 2012, these programmes had a total volume of close to €51 billion (covering more than 1.1 million loans and grants), resulting in an accumulated greenhouse gas reduction of roughly 6 million tonnes of CO_2 equivalent. As regards the effectiveness of this funding, KfW commissioned a study in 2011 to look at the impacts of the programmes targeted at energy efficiency in buildings, which showed significant benefits not only in terms of energy saved but also with respect to wider societal gains mainly in the form of jobs created and/or maintained. The study estimated that for every euro invested in these programmes 2 to 5 euros were flowing back to state coffers mainly due to increased tax revenues and reduced unemployment benefit payments.

A complete overview of the KfW scheme (in English) can be found at: http://sticerd.lse.ac.uk/dps/case/cp/KfWFullReport.pdf

Similar results have been observed in other Member States including Ireland, where a cost benefit analysis[xv] of the *Home Energy Savings* scheme based on national accounting rules, showed that for every euro invested in the scheme, up to 5 euro flowed back to public finances. This scheme was a simple grant scheme and, like the KfW programme noted above, the bulk of the benefits arose from safeguarding or creating new jobs.

4 No-Cost Measures that Member States Could Implement to Remove Barriers to Energy Efficient Renovation

The main recommendations of the Copenhagen Economics Study to national governments point out that in the current context of available capacity in the economy and stress on public budgets due to the economic crisis, energy savings projects are a particularly attractive option to increase economic activity, as a number of structural barriers are holding back otherwise profitable investments. By addressing the most significant structural barriers through government action, these investments will help to boost the economy, while not reducing governments' net revenue. Conversely such initiatives may even create net revenue.

This is a direct consequence of the nature of the four key structural barriers that hold back energy savings in buildings *and* the policies required to deal with them. The Study identifies at least four:

> ***Barrier 1:*** Rent regulation in both publicly and privately owned residential houses, and to a certain extent commercial buildings, often prevents landlords from passing on the costs for improvement in the quality of the buildings, including a lower energy bill to tenants. This greatly reduces the landlords' incentive to invest in energy efficient renovation of buildings. This is a problem as such investments would reduce the total housing bill for the tenant.

***Action*:**
Modernise rent regulation to allow landlords and tenants to split the gains from energy efficient renovation of buildings. This is largely without direct costs to public finances.[xvi]

> ***Barrier 2:*** Budget management of publicly owned buildings tends to focus on shorter term cash flows as opposed to longer term running costs. This punishes projects with higher upfront costs as counterpart to lower future operating costs i.e. a lower energy bill. In addition, the discount rates applied to assess public investments have not followed the general current trend towards lower market rates.

***Action*:**
Reform budget management[xvii] **of publicly owned buildings to allow for a longer term focus in investments destined for the renovation of buildings. This will reduce longer term operating costs in the publicly owned building stock.**

Barrier 3: The relatively widespread favourable tax treatment of heating and electricity use in buildings reduces gains from otherwise viable energy savings projects.

Action:

Removing or reducing such tax advantages will render energy efficient renovation of buildings more attractive, and provide direct net revenue gains to public budgets.

Barrier 4: Handling of risk in renovation projects has traditionally been a weak point. Investors may face high up-front costs, which imply that they run more substantial risks than for a similar project with lower up-front costs. In this respect it is an important question how you set up, monitor and evaluate performance contracts that ensure that the owner/user of the building *de facto* gets the promised benefits required to pay back the substantial and non-reversible investment cost over time. Concepts such as Energy Service Companies (ESCO) and Energy Performance Contracts (EPC) which are explicitly designed to align risks and responsibility for promised outcomes have not been developed to deliver on renovation projects. In fact, there are examples of countries[xviii] not allowing the use of EPCs in the public sector.

Action:

Well-designed risk-sharing programmes can help government as well as private building owners to realise cost savings with very limited budget costs. Key actions could be initiating pilot projects and information campaign activities to test the concepts and their expected beneficial effects.

End of Annexe

EuroACE Members (May 2014) are:

Endnotes

[i] Calculated from the potentials identified for different segments of the building sector by the Fraunhofer ISI in its report: Analysis of a European Reference Target System for 2030 (Fraunhofer ISI, 2013)

[ii] The three targets are: Reduce GHG emissions by 20% as compared to 1990 levels (mandatory); increase the share of energy produced from renewable sources to 20% (mandatory) and improve energy efficiency by 20% (voluntary).

[iii] Analysis of a European Reference Target System for 2030 (Fraunhofer ISI, 2013)

[iv] Energy Economic Developments in Europe (European Commission, 22 January 201) : http://ec.europa.eu/economy_finance/publications/european_economy/2014/pdf/ee1_en.pdf

[v] Report Europe's Buildings Under the Microscope *(BPIE, 2011)*

[vi] The Renovate Europe Campaign (REC), launched in 2011 is an initiative of EuroACE, the European Alliance of Companies for Energy Efficiency in Buildings. It is the only EU-wide campaign that focusses exclusively on ambitious renovation of the building stock in the EU and is the voice that 'bangs the drum' for energy efficient renovations, taking a technology neutral, integrated and holistic approach to energy efficient renovations. See www.renovate-europe.eu

[vii] Multiple Benefits of Investing in Energy Efficient Renovations - Impact on Public Finances (Copenhagen Economics, 2012)

[viii] For each Member State to estimate the potential benefit to its society and its public finances, the Study found that the potential of a particular Member State is generally directly proportional to its percentage share of EU GDP.

[ix] The Coalition for Energy Savings brings together business, professional, local authorities and civil society organisations. The Coalition's purpose is to make the case for a European energy policy that places a much greater, more meaningful emphasis on energy efficiency and savings. In particular it is arguing for the current 20% energy saving target to be binding. See www.energycoalition.eu

[x] Energy Efficiency – The Fuel for the EU Economy (Energy Efficiency Financial Institutions Group (EEFIG), 2014) http://ec.europa.eu/energy/efficiency/studies/doc/2014_fig_how_drive_finance_for_economy.pdf

[xi] Energy Efficiency Market Report 2013, Market Trends and Medium-Term Prospects (IEA, 2013)

[xii] Commission Communication For a European Industrial Renaissance (January 2014)

[xiii] See www.euroace.org

[xiv] Taken from the BPIE Report *A Guide to Developing Strategies for Building Energy Renovation*, published February 2012

[xv] http://www.seai.ie/Publications/Statistics_Publications/Energy_Forecasts_for_Ireland/Economic_Analysis_of_Residential_and_Small-Business_Energy_Efficiency_Improvements.pdf

[xvi] As overall housing cost would be reduced, the public costs to e.g. social housing would also be reduced.

[xvii] Interpretations of Eurostat rules on public debt and deficit (ESA 95 manual), are a significant barrier to the development of energy efficiency in public buildings and to the implementation of the Energy Efficiency Directive (2012/27/EU). According to these interpretations, investments in energy efficiency in public buildings even when made by private partners such as ESCOs, have to be counted as deficit in national public accounts. As a result, public entities do not want to conclude ESCOs contracts to avoid increasing their deficit. These excessive interpretations can be modified only as a result of an action by Member States as they have the power to ask EUROSTAT for such change. Please see ESA 95, page 183, for more details: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-42-02-585

[xviii] In its Issue Brief "EU public-sector experiences with building efficiency" , the Institute for Building Efficiency (IBE) conducted a series of interviews and surveys in winter of 2011 with public officials in the UK, France and Germany